

Attorney Docket No. 39700-577N01US/NC16859US
Customer No. 64046

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of: Confirmation No.: 6771
Otso AUTERINEN Art Unit: 2416
Application No.: 10/519,092 Examiner: Candal Elpenord
Filed: February 17, 2005
For: COMMUNICATIONS SYSTEM AND METHOD

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AMENDMENT TO THE FINAL OFFICE ACTION MAILED MAY 27, 2009

In response to the Final Office Action mailed May 27, 2008, please amend the above-identified application as set forth below.

Amendments to the claims are submitted beginning on page 2.

Remarks are submitted beginning on page 8.

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August 27, 2009

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Maria Fambro

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Amendments to the Claims:

This listing of claims replaces all prior listings of claims:

Listing of Claims:

1. (Currently Amended) A system, comprising:
 - user equipment;
 - a resource node configured to provide access to a wireless connection coupled to the user equipment and to manage resource for communication with said user equipment; and
 - a managing node configured to manage traffic flow, wherein said resource node and said managing node are configured so that negotiation information determined by the at least one resource node is passed between the resource node and the managing node, said managing node selecting a parameter for a new traffic flow based on said negotiation information, wherein said negotiation information comprises cost.

2-3. (Cancelled)

4. (Previously Presented) A system as claimed in claim 1, wherein said negotiation information further comprises at least one of type of traffic and the bit rate of the traffic.

5-9. (Cancelled)

10. (Previously Presented) A system as claimed in claim 1, wherein said managing node is located at an edge of a network.

11. (Previously Presented) A system as claimed in claim 1, wherein said managing node comprises a gateway general packet radio service support node.

12-13. (Cancelled)

14. (Previously Presented) A system as claimed in claim 1, wherein the managing node further provides detecting a new flow and wherein communication between the managing node and resource node is via a general packet radio service tunneling protocol or a multi-protocol label switching protocol.

15. (Previously Presented) A system as claimed in claim 1, wherein the resource node further provides balancing a load between available resources.

16. (Cancelled)

17. (Currently Amended) A method, comprising:
determining negotiation information at a resource node configured to provide access to a wireless connection coupled to the user equipment, the negotiation information comprising cost; and
passing the determined negotiation information between the resource node and a managing node.

18-19. (Cancelled)

20. (Currently Amended) An apparatus, comprising:

a traffic flow manager configured to manage a traffic flow;

an information receiver configured to receive negotiation information from a resource node configured to provide access to a wireless connection coupled to the user equipment, the negotiation information comprising cost information which is determined at the resource node; and

a selector configured to select at least one parameter for a new traffic flow based on said negotiation information.

21. (Currently Amended) An apparatus, comprising:

a resource manager, at a node, configured to communicate via a wireless connection with user equipment;

an information determiner, at the node, configured to determine negotiation information, the negotiation information comprising cost; and

an information passer, at the node, configured to pass said negotiation information to a managing node.

22. (Cancelled)

23. (Cancelled)

24-25. (Cancelled)

26. (Previously Presented) An apparatus as claimed in claim 20, wherein said parameter is at least one of the following, traffic handling class, cost, and target bit rate.

27. (Previously Presented) An apparatus as claimed in claim 21, wherein the apparatus comprises an access node which is configured to communicate with user equipment.

28. (Previously Presented) An apparatus as claimed in claim 27, wherein the access node is a base station or radio network controller.

29. (Previously Presented) An apparatus as claimed in claim 21, wherein said apparatus is comprised in an access node.

30. (Previously Presented) An apparatus as claimed in claim 21, wherein the apparatus further comprises a load balancer configured to balance a load between available resources.

31. (Previously Presented) A method as claimed in claim 17, further comprising negotiating in order to select the at least one parameter.

32. (Previously Presented) A method as claimed in claim 31, wherein said negotiation information further comprises at least one of type of traffic and bit rate of the traffic.

33. (Previously Presented) A method as claimed in claim 17, wherein said negotiation information is determined for a plurality of different traffic handling classes.

34. (Previously Presented) A method as claimed in claim 17, wherein said parameter is at least one of the following, traffic handling class, cost, and target bit rate.

35. (Previously Presented) An apparatus as claimed in claim 20, wherein said apparatus is comprised in a managing node located at an edge of a network.

36. (Previously Presented) An apparatus as claimed in claim 20, wherein said apparatus is comprised in a managing node comprising a gateway general packet radio service support node.

37. (Previously Presented) A method as claimed in claim 17, wherein said resource node is an access node.

38. (Previously Presented) A method as claimed in claim 17, wherein the managing node further provides guiding an actual flow rate to a target flow rate.

39. (Previously Presented) A method as claimed in claim 17, wherein the managing node further provides detecting a new flow.

40. (Previously Presented) A method as claimed in claim 17, wherein the resource node further provides balancing a load between available resources.

41. (Previously Presented) A method as claimed in claim 17, wherein communication between the managing node and resource node is via a general packet radio service tunneling protocol or a multi-protocol label switching protocol.

42. (Currently Amended) A method comprising:
managing, at a node, a traffic flow;

receiving, at the node, negotiation information from a resource node configured to provide access to a wireless connection, wherein the negotiation information comprises cost information which is determined at the resource node; and selecting at least two parameter for a new traffic flow based on said negotiation information.

43. (Canceled)

44. (Currently Amended) An apparatus, comprising:

managing means, at a node, for managing a traffic flow;
information receiving means, at the node, for receiving negotiation information from a resource node configured to provide access to a wireless connection, wherein the negotiation information comprises cost information which is determined at the resource node; and

selecting means for selecting at least two parameter for a new traffic flow based on said negotiation information.

REMARKS

In the Final Office Action mailed May 27, 2009, the Examiner rejected claims 23 and 43 under 35 U.S.C. §112, first paragraph, for failing the written description requirement; rejected claims 1, 4, 10-11, 14, 17, 20, 21, 23, 26-29, 33, 35-37, 39, and 41 under 35 U.S.C. § 102(b) as anticipated by WO 97/26739 to Kari et al. (Kari); rejected claims 15, 30, 38, and 40 under 35 U.S.C. § 103(a) as unpatentable over Kari and U.S. Patent No. 6,631,122 to Arunachalam et al. (Arunachalam); rejected claims 31, 32, and 34 under 35 U.S.C. § 103(a) as unpatentable over Kari and U.S. Patent Application Publication No. 2002/0068545 to Oyama et al. (Oyama); and rejected claims 42-44 under 35 U.S.C. § 103(a) as unpatentable over Kari and U.S. Patent No. 6,434,380 to Anderson et al. (Anderson).

By this amendment, Applicant amends claims 1, 17, 20, 21, 42 and 44 to more clearly define the features of those claims and cancels claims 23 and 43 without prejudice or disclaimer.

Claims 1, 4, 10, 11, 14, 15, 17, 20, 21, 26-42, and 44 are currently pending.

Regarding the objection under section 112, Applicant submits that the cancellation of claims 23 and 43 obviate the basis of the rejection.

The Examiner rejected claims 1, 4, 10-11, 14, 17, 20, 21, 26-29, 33, 35-37, 39, and 41 under 35 U.S.C. § 102(b) as anticipated by Kari. Applicant respectfully traverses this rejection.

Claim 1 defines a system including the following features:

user equipment;

a resource node configured to provide access to a wireless connection coupled to the user equipment and to manage resource for communication with said user equipment; and

a managing node configured to manage traffic flow, wherein said resource node and said managing node are configured so that negotiation information determined by the at least one resource node is passed between the resource node and the managing node, said managing node selecting a parameter for a new traffic flow based on said negotiation information, wherein said negotiation information comprises cost.

Kari discloses a packet radio system that includes a radio interface for a mobile station MS. See Kari at FIG. 1. The Kari system includes packet radio support nodes (SGSN), gateway support nodes (GGSN), and also includes a billing gateway support node (BGGSN). Referring to Kari, the GGSNs of different operators may communicate with one another to support roaming between different GPRS networks (see page 7, lines 10-13 of Kari). The GGSN is also used for storing location information of the GPRS mobile stations. The SGSN collects information about the radio interface usage and the GGSN collects information about the data network usage (see page 8, lines 6-11 of Kari). However, the SGSN, GGSN, and BGSN cannot possibly constitute a “resource node,” much less “a resource node configured to provide access to a wireless connection coupled to the user equipment and to manage resource for communication with said user equipment” as recited in claim 1.

Moreover, as the Kari SGSN, GGSN, and BGSN do not constitute the “resource node” recited in claim 1, Kari also fails to disclose a negotiation between a resource node and a managing node, such as “wherein said resource node and said managing node are configured so that negotiation information determined by the at least one

resource node is passed between the resource node and the managing node," as recited in claim 1.

In view of the foregoing, claim 1 is not anticipated by Kari, and the rejection under 35 U.S.C. § 102(b) of claim 1, as well as claims 4, 10-11, and 14 at least by reason of their dependency, should be withdrawn.

Independent claims 17, 20, and 21, although of different scope, include the above noted feature of claim 1. For at least the reasons noted above, claims 17, 20, and 21 are not anticipated by Kari, and the rejection under 35 U.S.C. § 102(b) of claims 17, 20, and 21, as well as claims 26-29, 33, 35-37, 39, and 41 at least by reason of their dependency, should be withdrawn.

The Examiner rejected claims 15, 30, 38, and 40 under 35 U.S.C. § 103(a) as unpatentable over Kari and Arunachalam. Applicant respectfully traverses this rejection.

Claim 15 depend from claim 1 and include all the features recited therein including, among other things, "wherein said resource node and said managing node are configured so that negotiation information determined by the at least one resource node is passed between the resource node and the managing node." As noted above, Kari fails to discloses or suggest this feature. Moreover, although Arunachalam discloses a QoS agent, Arunachalam fails to cure the noted deficiencies of Kari. Claims 30, 38, and 40, although of different scope, include features similar to those noted with respect to claim 15. Therefore, claims 15, 30, 38, and 40 are allowable over Kari and Arunachalam, whether taken alone or in combination, and the rejection under 35 U.S.C. § 103(a) of claims 15, 30, 38, and 40 should be withdrawn.

The Examiner rejected claims 31, 32, and 34 under 35 U.S.C. § 103(a) as unpatentable over Kari and Oyama. Applicant respectfully traverses this rejection.

Claim 31 depends from claim 30 and include all the features recited therein including, among other things, “passing the determined negotiation information between the resource node [configured to provide access to a wireless connection coupled to the user equipment] and a managing node.” As noted above, Kari fails to discloses or suggest this feature. Moreover, although Oyama discloses charging, Oyama fails to cure the noted deficiencies of Kari. Claims 30, 38, and 40, although of different scope, include features similar to those noted with respect to claim 15. Therefore, claims 31, 32, and 34 are allowable over Kari and Oyama, whether taken alone or in combination, and the rejection under 35 U.S.C. § 103(a) of claims 31, 32, and 34 should be withdrawn.

The Examiner rejected claims 42 and 44 under 35 U.S.C. § 103(a) as unpatentable over Kari and Anderson. Applicant respectfully traverse this rejection.

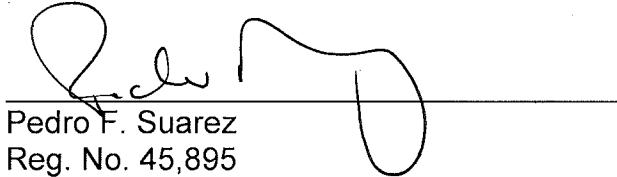
Claim 42 recites a combination including, among other things, “receiving, at the node, negotiation information from a resource node configured to provide access to a wireless connection, wherein the negotiation information comprises cost information which is determined at the resource node.” As noted above, Kari fails to discloses or suggest this feature. Moreover, although Anderson discloses negotiation, Anderson fails to cure the noted deficiencies of Kari. Claim 44, although of different scope, includes features similar to those noted with respect to claim 42. Therefore, claims 42 and 44 are allowable over Kari and Anderson, whether taken alone or in combination, and the rejection under 35 U.S.C. § 103(a) of claims 42 and 44 should be withdrawn.

CONCLUSION

On the basis of the foregoing amendments, the pending claims are in condition for allowance. It is believed that all of the pending claims have been addressed in this paper. However, failure to address a specific rejection, issue or comment, does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above are not intended to be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper.

The Commissioner is hereby authorized to charge the fee and any additional fees that may be due, or credit any overpayment of same, to Deposit Account 50-0311, Reference No. Attorney Docket No. 39700-577N01US/NC16859US. If there are any questions regarding reply, the Examiner is encouraged to contact the undersigned at the telephone number provided below.

Respectfully submitted,



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